U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Niagara Falls Boulevard Radiological Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #6**
Niagara Falls Boulevard Radiological Site
A23Q
Niagara Falls, NY
Latitude: 43.0965960 Longitude: -78.9520670

To: James Doyle, USEPA Region 02
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From: Eric Daly, On-Scene Coordinator

Date: 7/13/2016

Reporting Period: 06/24/2016 through 07/13/2016

1. Introduction

1.1 Background

Site Number:	A23Q	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response	EPA	**Incident**	Removal

Lead:		**Category:**	Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	6/1/2016	**Start Date:**	6/1/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	NYN000206699	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Removal Assessment and Removal Action

1.1.2 Site Description

The 9540 Niagara Falls Boulevard site (CERCLIS ID NYN000206699), hereinafter referred to as "the NFB site" or "the site", is located in a mixed commercial and residential area of Niagara Falls, New York. The site consists of two parcels, namely 9524 and 9540 Niagara Falls Boulevard. This site encompasses approximately 2.53 acres. Currently, the 9524 Niagara Falls Boulevard property contains a bowling alley and an asphalt parking lot; the 9540 Niagara Falls Boulevard property contains a vacant building and an asphalt parking lot. The properties are bordered to the north by a wooded area; to the east by a church; to the south by Niagara Falls Boulevard, beyond which is a residential area; and to the west by a hotel and residential area.

In 1978, the U.S. Department of Energy conducted an aerial radiological survey of the Niagara Falls region and found more than 15 properties having elevated levels of radiation above background levels. It is believed that, in the early 1960s, slag from the Union Carbide facility located on 47th Street in Niagara Falls was used as fill on the properties prior to paving. The Union Carbide facility processed ore containing naturally-occurring high levels of uranium and thorium to extract niobium. The slag contained sufficient quantities of uranium and thorium to be classified as a

licensable radioactive source material. Union Carbide subsequently obtained a license from the Atomic Energy Commission, now the Nuclear Regulatory Commission, and the State of New York; however, the slag had been used as fill throughout the Niagara Falls region prior to licensing. Based on the original survey and subsequent investigations, it is believed that the radioactive Union Carbide slag was deposited on the NFB site.

1.1.2.1 Location
9524-9540 Niagara Falls Boulevard, Niagara Falls, NY

1.1.2.2 Description of Threat
Radioactive contamination

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In September/October 2006 and May 2007, NYSDEC conducted radiological surveys of the interior and exterior of both properties on several occasions using both an Exploranium-135 and Ludlum 2221 detectors. With the exception of an office area and storage space at 9540 Niagara Falls Boulevard that was constructed after the original building directly on top of the asphalt parking lot, interior radiation levels were relatively low. The highest reading in the newer area was 115 µR/hr; elsewhere throughout the building, radiation levels generally ranged between 10 and 20 µR/hr. Exterior readings taken at waist height generally ranged between 10 and 350 µR/hr, while the maximum reading of 600 µR/hr was recorded on contact (i.e., at the ground surface). At a fenced area behind the building located at 9540 Niagara Falls Boulevard, waist-high readings ranged between 200 and 450 µR/hr, and on-contact readings ranged between 450 and 750 µR/hr. Elevated readings were also observed on the swath of grass between the 9524 Niagara Falls Boulevard property and the adjacent property to the west that contains a hotel, and in the marshy area beyond the parking lot behind the buildings. Two biased samples of slag were collected from locations that exhibited elevated static Ludlum detector readings: one sample was collected from an area of loose blacktop that indicated readings of 515,905 cpm on the Ludlum detector, and one slag sample was collected in the marshy area that indicated

readings of 728,235 cpm on the Ludlum detector.

During a reconnaissance performed by the NYSDOH and NYSDEC on July 9, 2013, screening activities showed radiation levels at 200 µR/hr with a hand-held PIC unit around an area of broken asphalt and 500 µR/hr from a soil pile containing slag at the NFB site. Readings over 600,000 cpm were recorded with a sodium iodide 2x2 scintillation detector from the soil and slag pile.

The Niagara Falls Boulevard Site (Site) was referred to the EPA by the NYSDEC and NYSDOH on July 21, 2013. No other removal actions have been taken by other government or private parties prior to this request.

On September 10, 2013, WESTON conducted a gamma radiation screening of the 9524 Niagara Falls Boulevard property using a Ludlum 2221 Scaler Ratemeter. On December 4–5, 2013, further radiological survey information was obtained from the 9524 and 9540 Niagara Falls Boulevard properties, as well as the church property located further east of the two site parcels. The highest gamma radiation screening results were recorded from the exposed soil area in the rear, northern portion of the 9540 Niagara Falls Boulevard property.

On December 5–7, 2013, WESTON documented the areas of observed contamination at the NFB site. The areas of observed contamination were delineated by measuring the gamma radiation exposure rates, and determining where the gamma radiation exposure rate around the source equals or exceeds two times the gamma radiation at site-specific background rates. The areas of observed contamination are defined by site-attributable gamma radiation exposure rates, as measured by a survey instrument held 1 meter above the ground surface, which equal or exceed two times the site-specific background gamma radiation exposure rate. At the NFB site, an area of approximately 168,832 ft^2 was found to

have gamma radiation levels which exceed two times the background measurement of 8,391 cpm. PIC data were also collected at several points to confirm the boundary.

On December 11, 2013, WESTON collected a total of 16 soil samples (including one environmental duplicate sample) and three slag samples from fifteen boreholes advanced throughout the NFB site and the First Assembly Church property located directly adjacent to the east/northeast of the site property, using hollow-stem auger drilling methods. The two soil samples collected on the First Assembly Church property are to document background conditions. At each sample location, soil samples were collected directly beneath slag; at locations where slag was not present, the soil sample was collected at the equivalent depth interval.

The soil samples were analyzed for metals by inductively coupled plasma (ICP) technique and mercury by manual cold vapor technique in accordance with SW-846 Method 6010C and 7471B, respectively. In addition, soil and slag samples were analyzed for isotopic thorium and isotopic uranium by alpha spectrometry according to DOE method A-01-R, and radium-226 and radium-228 by gamma spectrometry according to DOE Method GA-01-R. Analytical results indicate concentrations of radionuclides found in the slag and soil to be significantly higher than at background conditions (i.e., greater than 2x background concentrations).

On April 28, 2014, EPA Contractor personnel collected radon and thoron concentration measurements from locations on and in the vicinity of the NFB site. At the selected locations in background areas, above the source material, and off the source area, radon and thoron concentration measurements in pCi/L were collected with RAD7 radon detectors. The radon and thoron measurements were collected at heights of one meter above the ground surface. The measurements included uncertainty values, which were taken into account to calculate adjusted concentrations for evaluation of observed release in the air migration pathway. There were no radon or thoron concentrations that exceeded

the site-specific background, nor were there any adjusted concentrations that equaled or exceeded a value two standard deviations above the mean site-specific background concentration for that radionuclide in that type of sample (i.e., there is no evidence of an observed release to air from site sources).

Based on the Pre-Remedial Evaluation, the site did not meet the minimum criteria necessary to be placed on EPA's "National Priorities List", a list of hazardous waste sites in the U.S. which are eligible for long-term cleanup financed under the federal Superfund program. However, it was subsequently determined that material contaminated with radiation was located beneath the asphalt parking lot shared by the bowling alley and a building supply center. EPA determined that the Agency would further assess the site to determine if an action under EPA's short term, or "removal" program was warranted.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

USEPA Pre-Remedial Program performed an assessment at the Niagara Falls Boulevard Site (NFB) in 2013-2014. Based on the Pre-Remedial Evaluation, the site did not meet the minimum criteria necessary to be placed on EPA's "National Priorities List", a list of hazardous waste sites in the U.S. which are eligible for long-term cleanup financed under the federal Superfund program. However, it was subsequently determined that material contaminated with radiation was located beneath the asphalt parking lot shared by the bowling alley and a building supply center. EPA determined that the Agency would further assess the site to determine if an action under EPA's short term, or "removal" program was warranted.

From June 24th through July 13th the following tasks/events occurred:

- **OSC Daly, HP Nguyen, Weston (2) and Guardian (RM, FCA, 2 Operators and 1 Tech) mobilized to**

Site on June 24, 2016.

- Decontamination tent construction outside of GNBC Office Area.

- Exhaust system and chimney constructed in GNBC Office Area.

- Particulate air monitoring and Radeco air monitoring conducted in the GNBC Office Area as well as strategic locations within other area of GNBC building and exterior of the building during interior operations.

- Multi-Rae was monitoring interior air quality (CO2, Oxygen) within the interior work space of GNBC Office Area throughout operations.

- GNBC Office Area concrete floor was cut, removed from area, sections scanned for radiological scan with pancake probe and swipes taken prior to relocating to secure storage container. No indication of contamination have been observed. Concrete will be disposed of as non-hazardous once conformational laboratory analysis results received.

- The removal of the asphalt/slag layer of GNBC Office Area was initiated. Material was placed in cubic yard boxes. The boxes were sealed prior to leaving the interior space. In the decon tent the boxes were swiped and swipe samples analyzed prior to boxes being relocated to secure storage container.

- All personnel within the GNBC Office Area were in appropriate PPE and were scanned with pancake probe within the decon tent prior to removal of PPE to determine if any removable contamination is leaving the building. No above background readings were observed during activities during this report time range.

- On July 5, 2016, the Dan Telvock news report was released via newspaper, internet and Channel 2 news broadcast. This report covered potential/existing radiological sites within the Niagara County area. Some information was based on in-person interview with OSC Daly on June 10,

2016. Both Niagara Falls Boulevard and Holy Trinity Sites were mentioned in the news piece.

- **There have been a few episodes of vandalism at the office trailer portion of Niagara Falls Boulevard Site located on 9626 Niagara Falls Boulevard. The portable toilets have been knocked over twice. More recently when the Site crew was off over the July 4th break (off on July 3rd and 4th). When OSC and crew returned to the site on July 5th both portable toilets were on their sides. The portable toilets are subcontracted by USEPA Contractor Guardian Environmental Services (GES). The portable toilet company informed GES that during our week break in June (June 17-23), the toilets were tipped then as well. A police report was filed with the Niagara Falls Police Department. On July 7th, police officers toured Site with OSC and obtained more information regarding the vandalism. On July 13th, motion sensor lights were installed in the office trailer area.**

- **On July 13, 2016, OSC Daly requested verbal increase of $1,400,000.00 for a total project ceiling of $2,000,000.00 to continue the emergency Comprehensive Environmental Response Compensation and Liability Act (CERCLA) removal action at the Niagara Falls Boulevard Site.**

- **Late afternoon July 13, 2016, U.S. Senator Charles E. Schumer put out a press request to urge the U.S. Environmental Protection Agency (EPA) to conduct an updated and comprehensive assessment of the numerous radioactive hotspots in Niagara County and the Grand Island area. This request appears directly related to recent news reports covering the Niagara Falls Boulevard Site, the Holy Trinity Site and other areas of interest in Niagara County.**

- **The last day working on Site was July 13, 2016 for this tour.**

2.1.2 Response Actions to Date

7 Cubic yard boxes of radiological contaminated

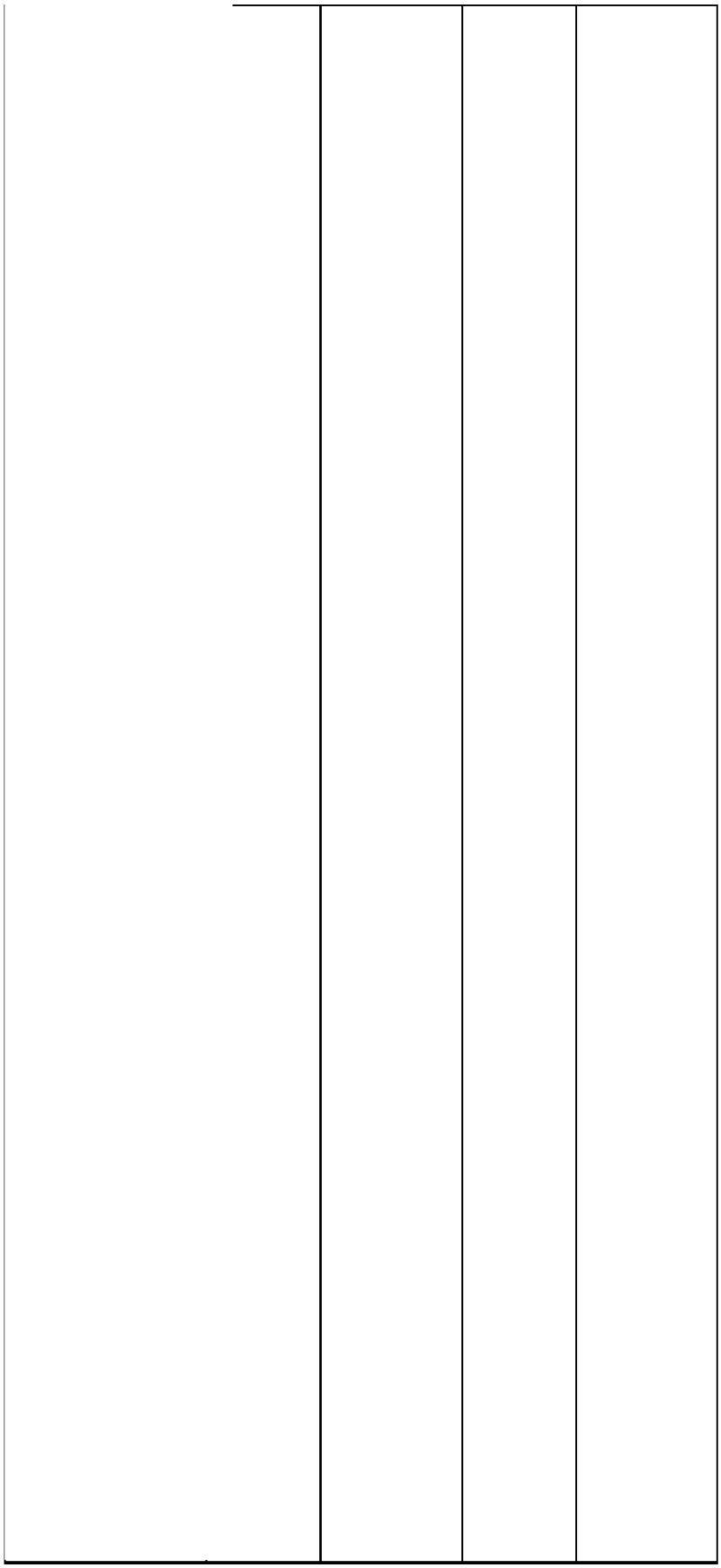
material was removed from the GNBC Office Area and staged in secured containers during this time period.

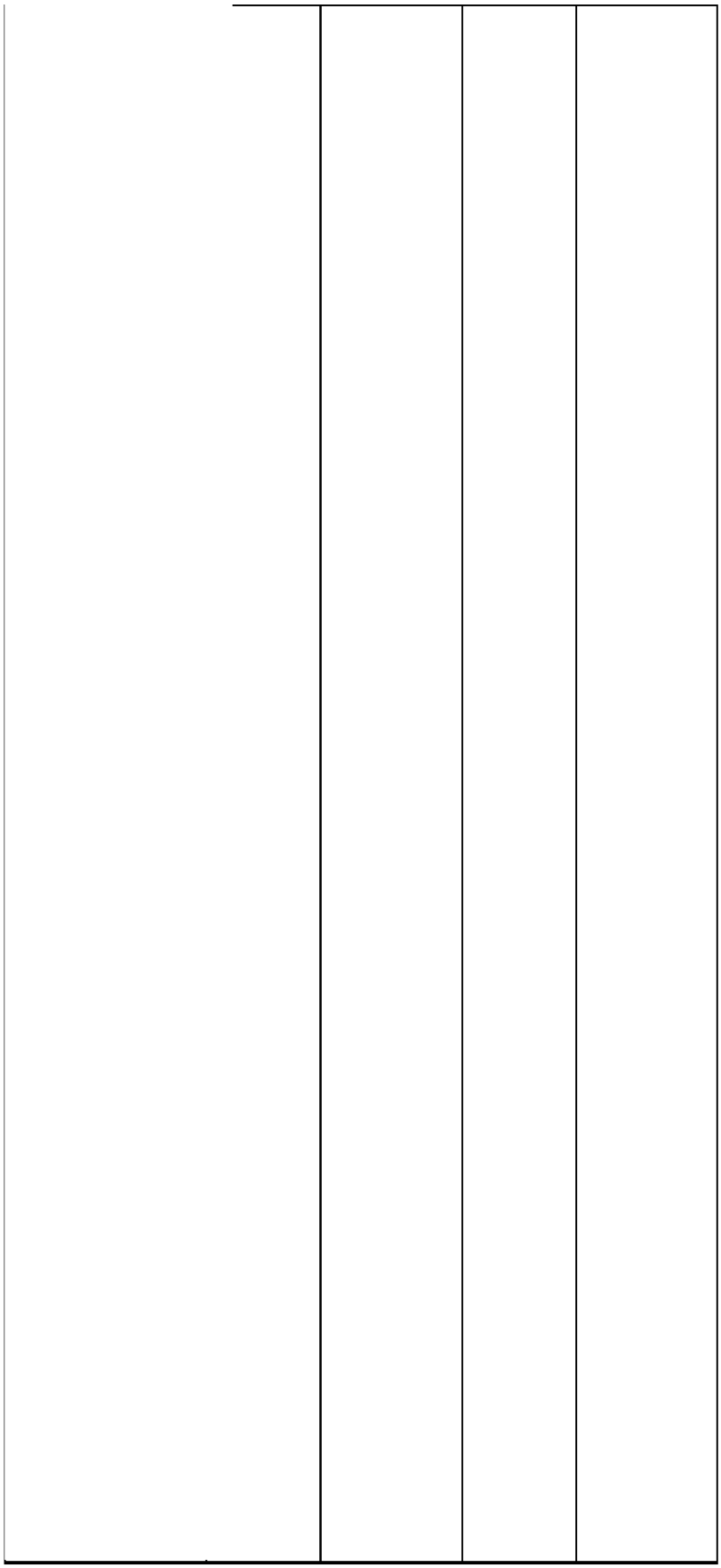
2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

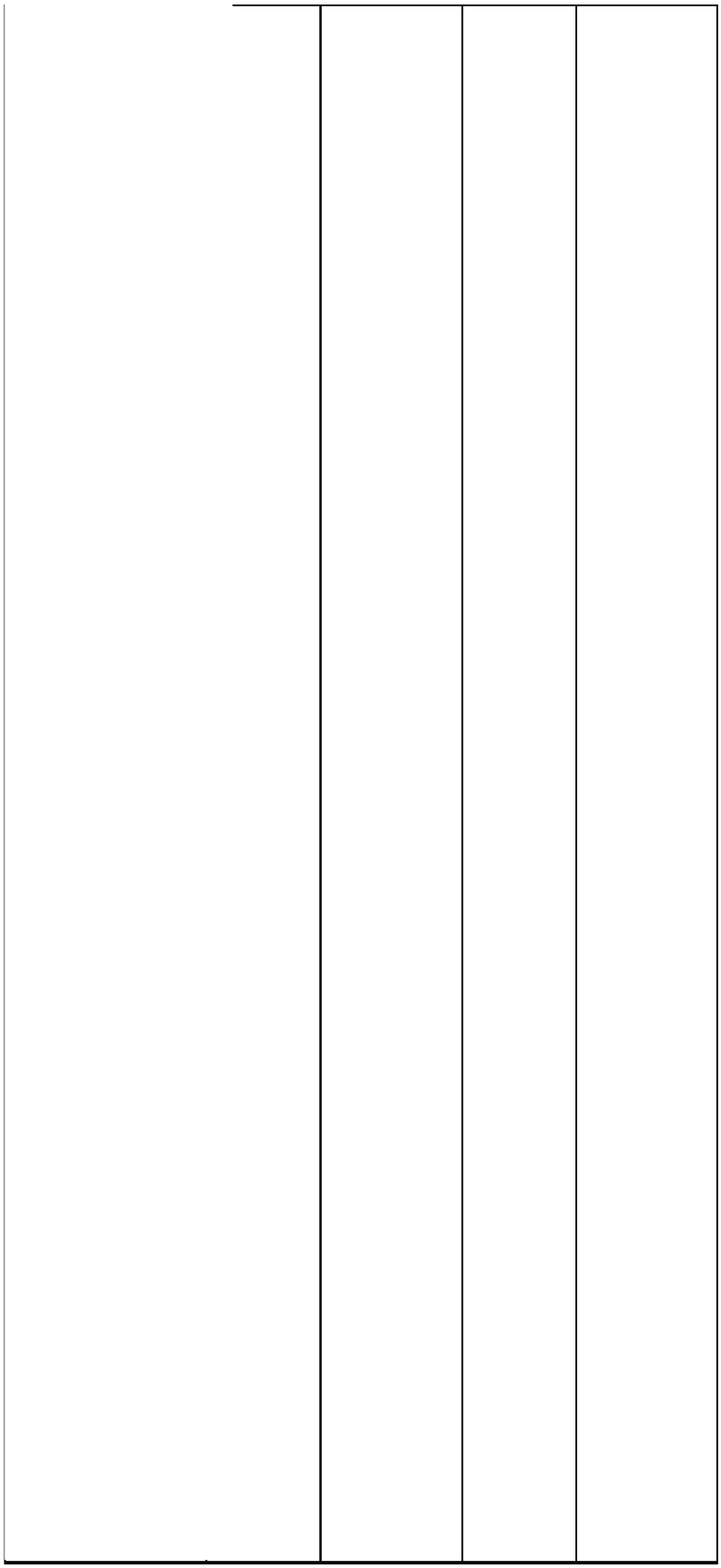
PRPs are being investigated by USEPA Enforcement Team

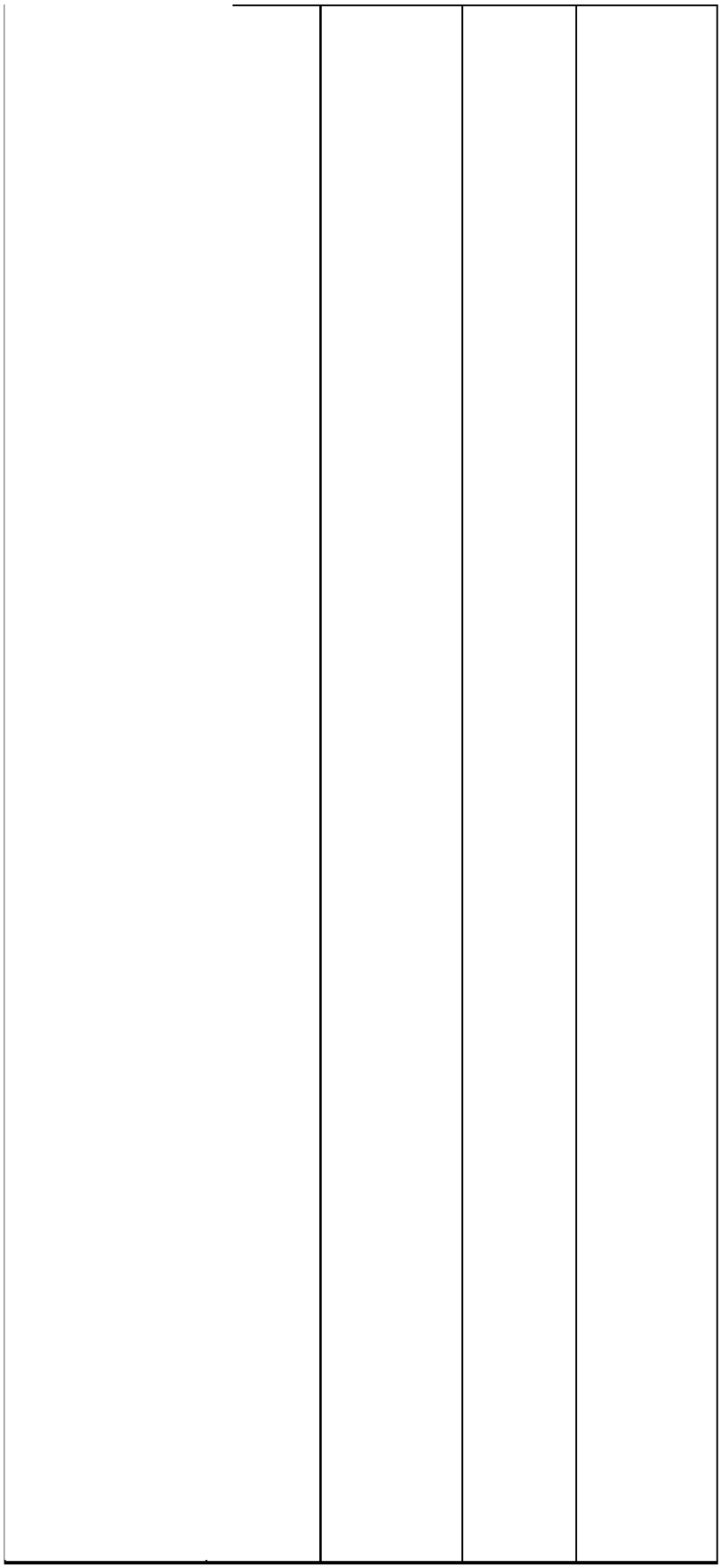
2.1.4 Progress Metrics

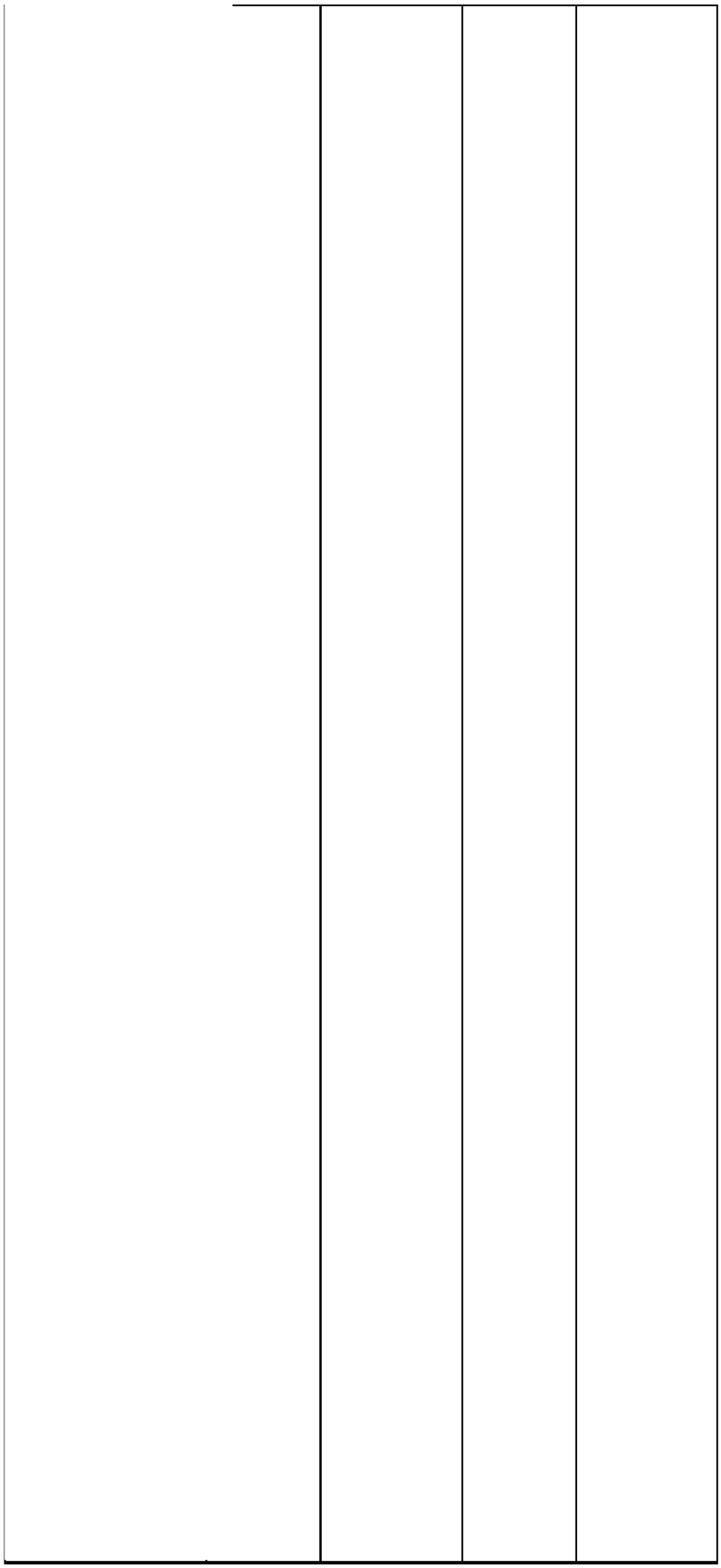
Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Dispos*

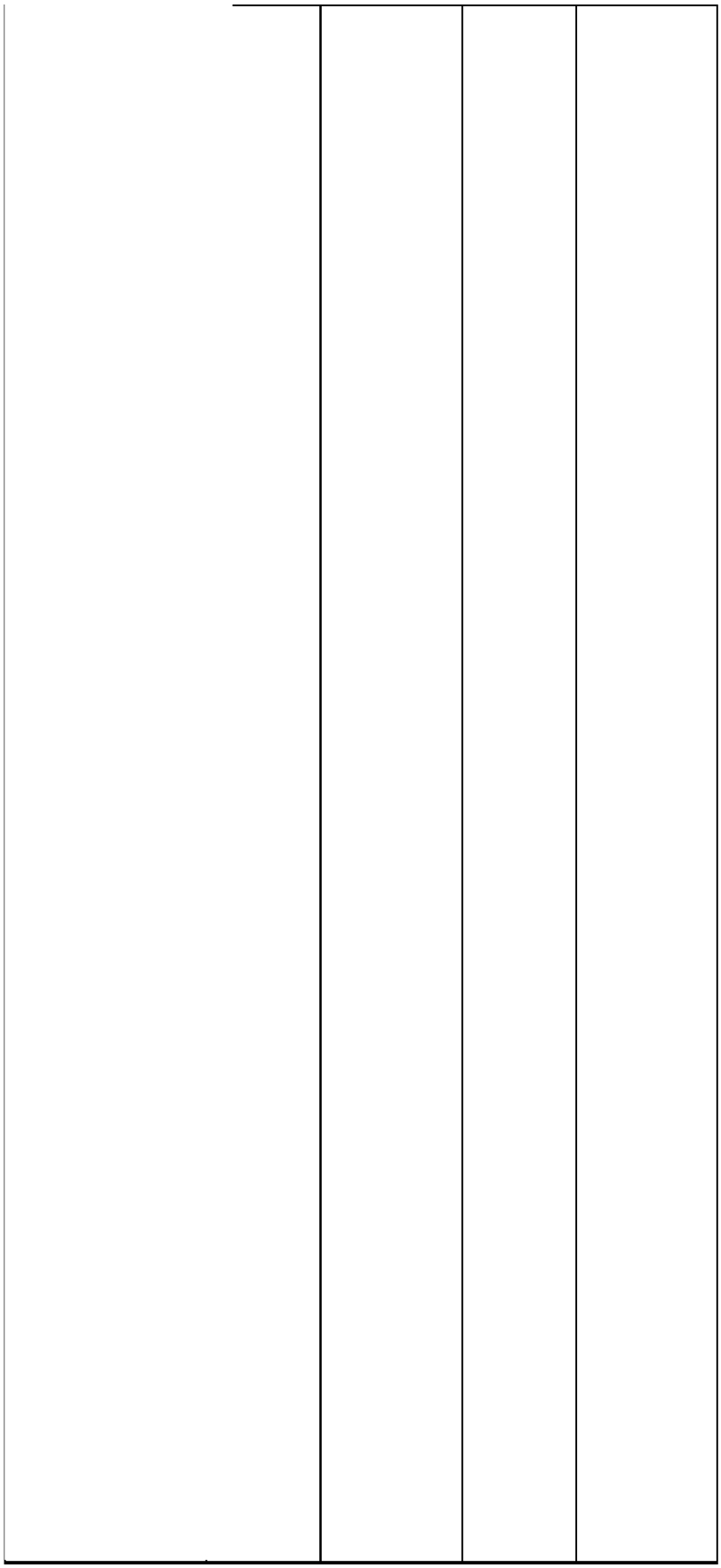


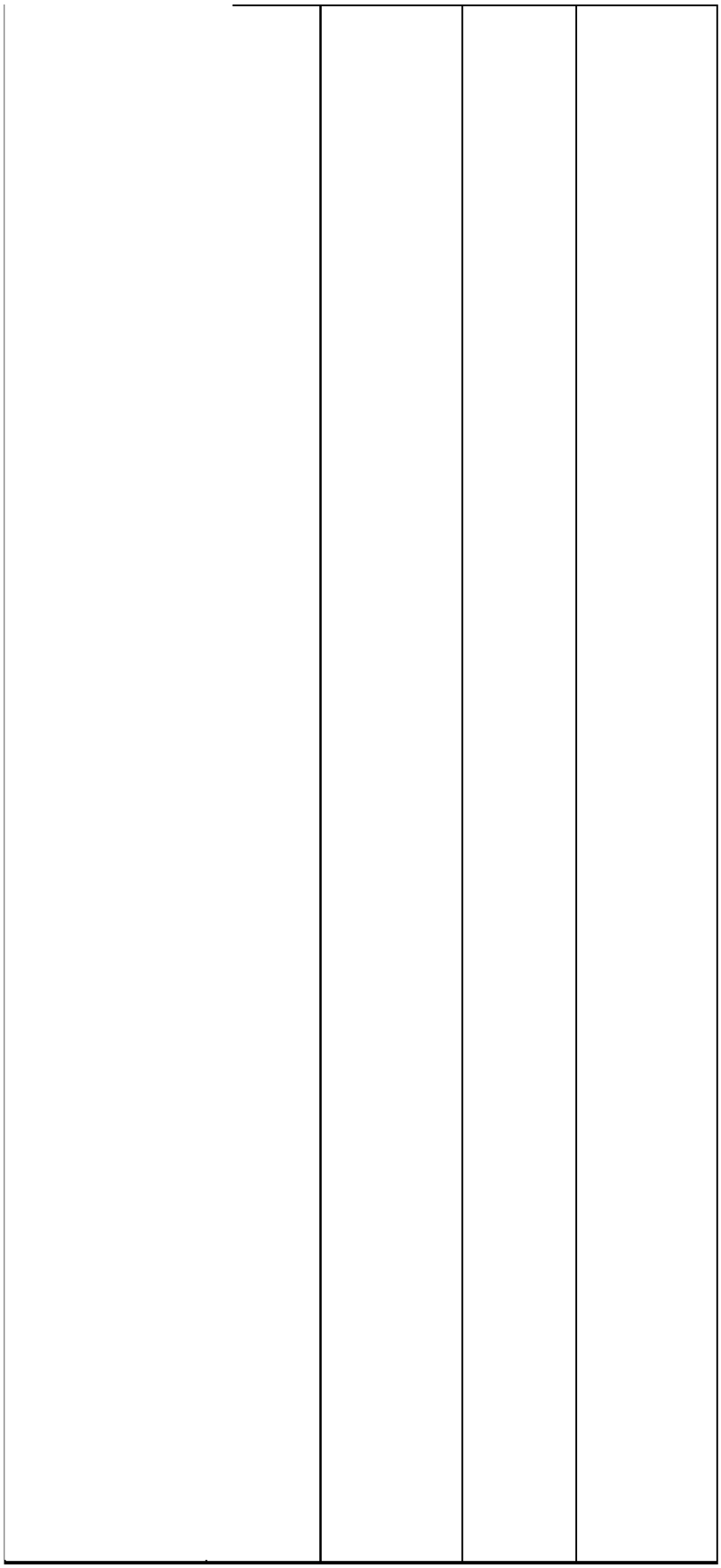


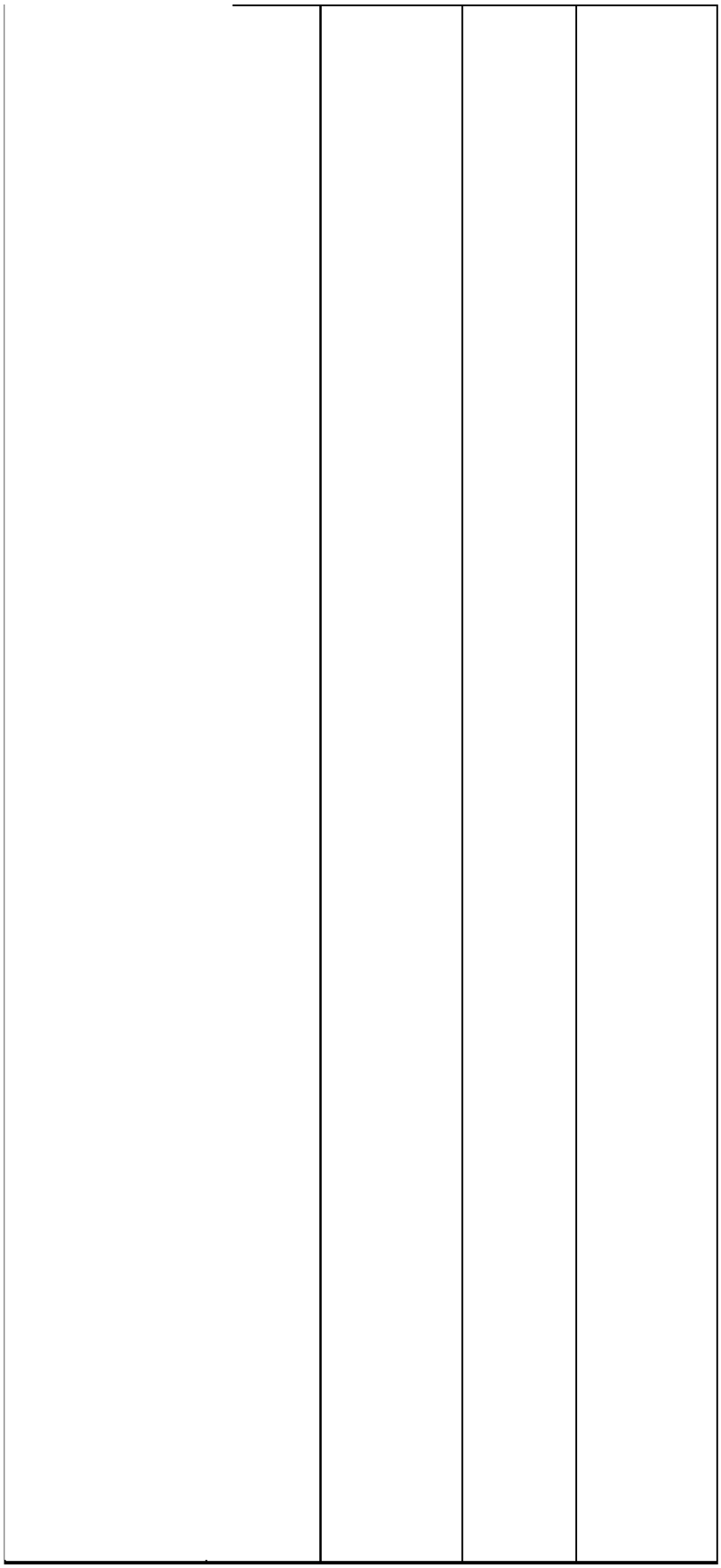


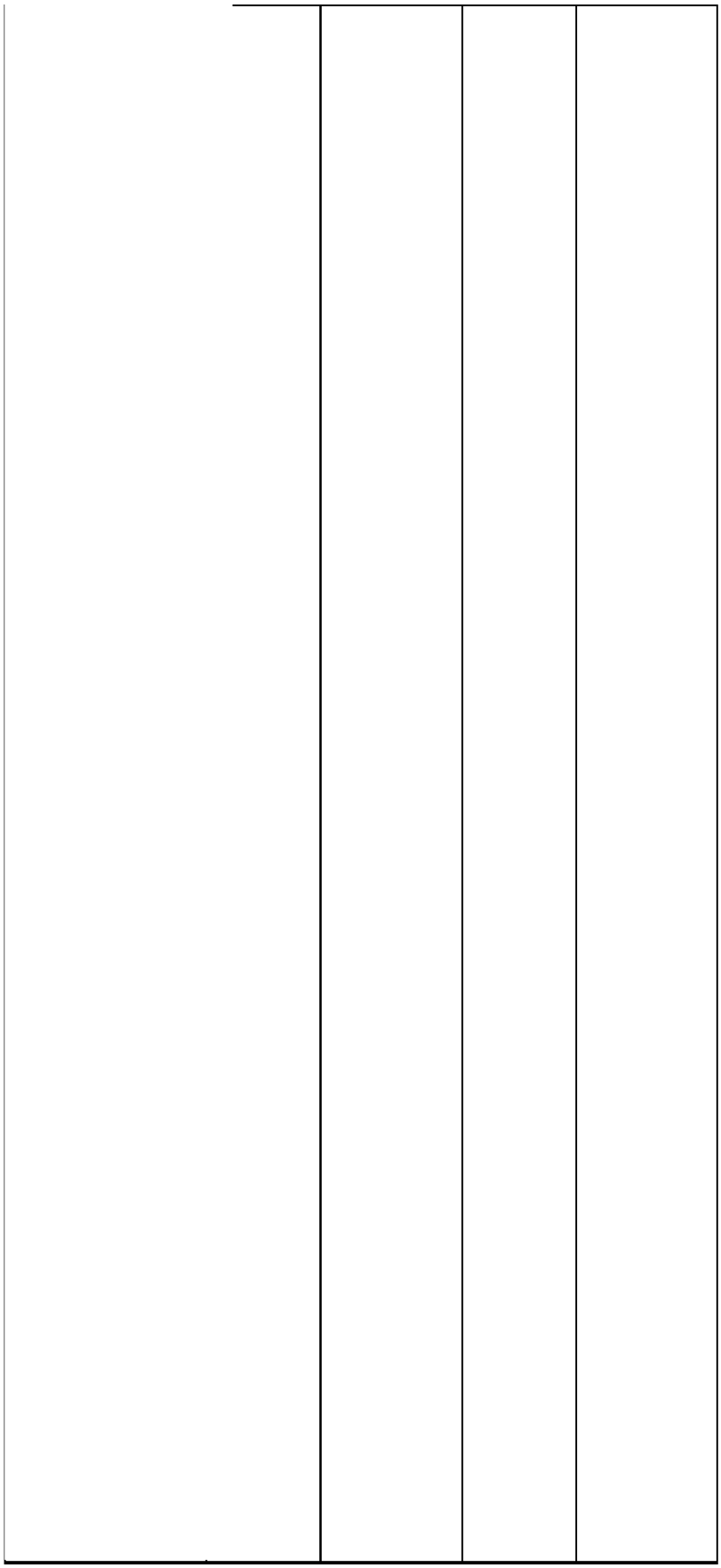


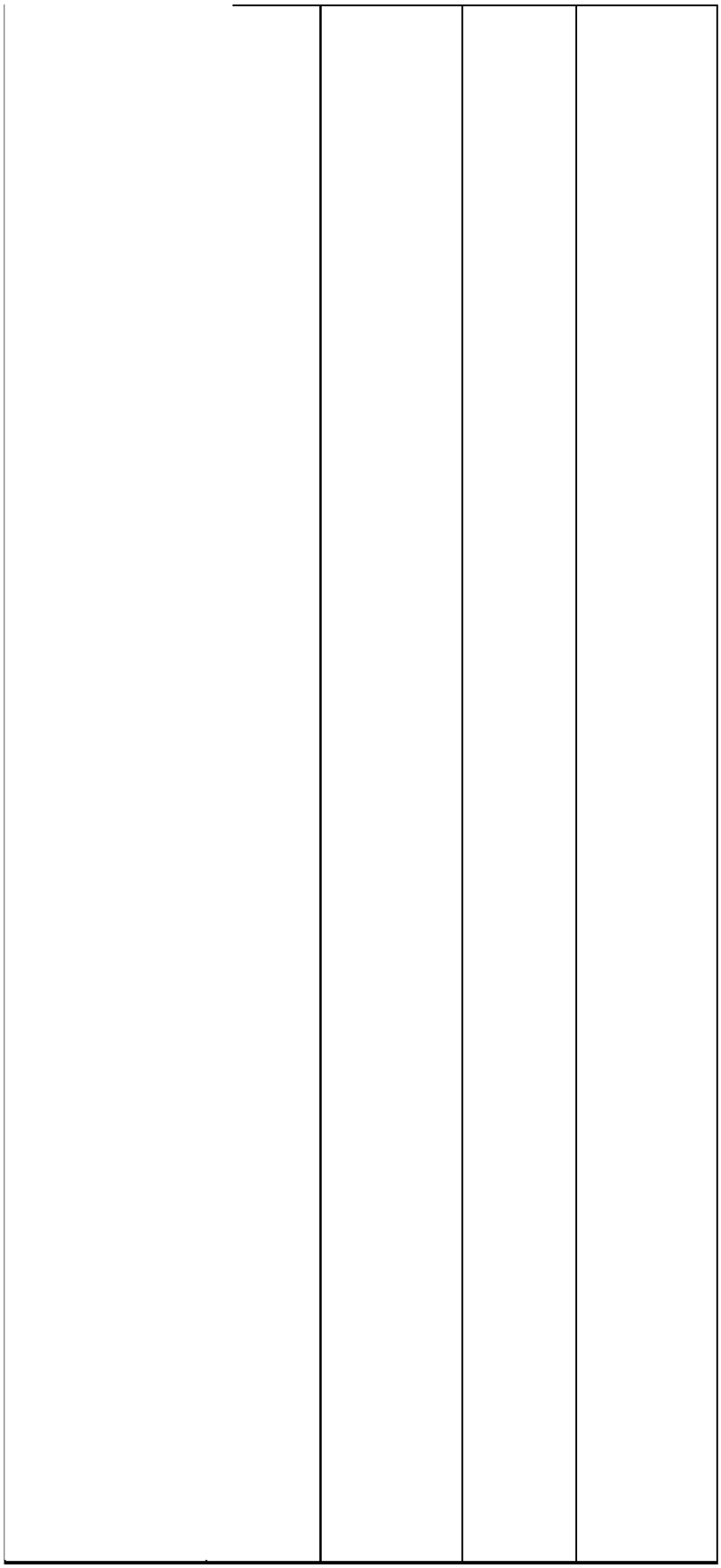












2.2 Planning Section

2.2.1 Anticipated Activities

- **Mobilize back on Site August 1, 2016.**
- **Stabilization of GNBC Office structure due to newly discovered inefficient roof support and suspect perimeter wall footers. The construction of this addition was not by code and necessary steps must be taken to stabilize structure in order to continue work. Permanent measures must be taken to bring this structure up to code.**
- **Continuation of the excavation and staging of contaminated material from GNBC Office Area.**
- **Begin removal of asphalt, excavation of contaminated material from specific sections of the parking lot and staging.**
- **Initiate excavation and staging of contaminated material from other internal spaces within GNBC structure.**
- **Post excavation sampling, analysis of GNBC Office footprint and other excavated areas.**
- **Backfilling of cleared excavated area with clean fill.**
- **Bid out transport and disposal of contaminated material.**

2.2.1.1 Planned Response Activities

- Continuation of the excavation and staging of contaminated material from GNBC Office Area.

- Begin removal of asphalt, excavation of contaminated material from specific sections of the parking lot and staging

2.2.1.2 Next Steps

Action Memo finalization.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

On May 13, 2016, ERRD Director authorized verbal funding in the amount of $500,000.00 in mitigation funding and $100,000.00 in RST contractor funding for a total project ceiling of $600,000.00 to initiate an emergency Comprehensive Environmental Response Compensation and Liability Act (CERCLA) removal action at the Niagara Falls Boulevard Site.

On July 13, 2016, OSC Daly requested verbal increase of $1,400,000.00 for a total project ceiling of $2,000,000.00 to continue the emergency Comprehensive Environmental Response Compensation and Liability Act (CERCLA) removal action at the Niagara Falls Boulevard Site

Estimated Costs	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$500,000.00	$250,000.00	$250,000.00	50.00%
TAT/START	$100,000.00	$17,419.02	$82,580.98	82.58%
Intramural Costs				
Total Site Costs	$600,000.00	$267,419.02	$332,580.98	55.43%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

GES Health and Safety Officer worked with HP Lyndsey Nguyen and OSC Daly to improve existing HASP and site activities.

2.5.2 Liaison Officer

2.5.3 Information Officer

Mike Basile is the lead USEPA Public Affairs Official. Mr. Basile distributed the NFB Site Fact sheet to local officials, neighboring businesses, schools and communities on May 31, 2016 and June 1, 2016.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

NYS DEC
NYS DOH
Niagara County DOH

4. Personnel On Site

OSC Daly
Health Physicist Lyndsey Nguyen
Weston: Two Technician
Guardian: RM, FCA, 2 Operators, 1 Tech & H&S Officer

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.